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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,733	02/05/2004	Kyung-Ho Yoon	04-156	8603

34704 7590 07/08/2004

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EXAMINER

BEHREND, HARVEY E

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,733

Applicant(s)

YOON ET AL.

Examiner

Harvey E. Behrend

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 25/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are vague, indefinite and incomplete, particularly as to what all is meant by and is encompassed by such terms as "unit strips", "unit corner strips", "equiangular with", "unit intermediate strips", "coolant flow guide vane", "guide tap", etc.

Claim 3 is vague, indefinite and incomplete as to the relationship of the "unit intermediate strips", to the "unit strips" of claim 1.

Claim 3 is vague, indefinite and incomplete as to how and in what manner, the plurality of "unit intermediate strips" can (by themselves as indicated by claim 3) encircle the intersecting inner strips (it would appear that one would also need 4 corner unit strips).

Claim 3 is vague, indefinite and incomplete as to how and in what manner, the "coolant flow guide vanes" differ from the "guide taps".

Claim 5 is vague, indefinites and incomplete as to exactly what is being claimed, since the last two lines thereof beginning with the word "thus" does not inherently follow from the structure previously recited. The metes and bounds of this claim are hence undefined.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Delafosse et al or Oh et al.

In Delafosse et al, note Figs. 1, 8, 9.

In Oh et al, note Figs. 2 and 7.

6. Claims 1, 2 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Mayet et al.

Note Figs. 6, 7, 9, 10, col. 4 line 52 to col. 5 line 45.

7. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of Delafosse et al, Oh et al or Mayet et al, in view of either DeMario et al or Nguyen et al.

Claims 3-6 recite the presence of coolant flow guide vanes, guide taps, and the arrangement and structural positioning thereof.

It is noted that the claims do not recite any structure to distinguish the "coolant flow guide vanes" from the "guide taps".

The primary references have been discussed above.

The secondary references each show it is old and advantageous in the spacer grid art, to provide the upper and lower edges of the perimeter strips with guide/protective/flow tabs or vanes of different geometries bent inwardly, in an alternative arrangement, all as set forth in applicants claims (e.g. note Fig. 3 of DeMario et al and, Figs. 4 and 5 of Nguyen et al), and to so modify any of the primary references would accordingly have been prima facie obvious.

8. The other references cited further illustrated pertinent art.

Note particularly that the advantageous use of anti-hang-up tabs or vanes is also shown in Perrotti et al (Figs. 5, 6, col. 9 lines 9-14), Fromel et al (Figs. 1, 3, 4, col. 1 lines 59+ and col. 4 lines 11+), Steinke (Fig. 1 and col. 4 lines 28-37), Steven et al (Figs. 1-4 and col. 3 lines 50-60), Anderson et al (particularly Fig. 5 and col. 6 lines 36+), and, Bryan (Fig. 10 and col. 8 lines 11+).


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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harvey Behrend whose telephone number is (703) 305-1831. The examiner can normally be reached on Tuesday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 306-4195.

Any inquiry of a general nature or releasing to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-1113.

Behrend/vs
June 16, 2004



HARVEY E. BEHREND
PRIMARY EXAMINER